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State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

April 23, 2013

Lon Thomas
Star Stone Quarries, Inc.
4040 South 300 West
Salt Lake City, Utah 84107

Subject: Review of Amended Notice of Intention to Commence Large Mining Operations, Star Stone Quarries, Inc, Cotton Thomas Quarry, M/003/0024, Box Elder County, Utah

Dear Mr. Thomas:

The Division of Oil, Gas and Mining has reviewed the referenced revised Notice of Intention to Commence Large Mining Operations (Notice) for the Cotton Thomas quarry, which was received April 7, 2014. The attached comments will need to be addressed before tentative approval may be granted.

The comments are listed under the applicable Minerals Rule heading; please format your response in a similar fashion. Please address only those items requested in the attached technical review by sending replacement pages of the original mining notice using redline and strikeout text. After the notice is determined technically complete, the Division will ask that you submit two clean copies of the complete and corrected plan. Upon final approval, both copies will be stamped "approved" and one will be returned for your records.

The Division will suspend further review of the Notice until your response to this letter is received. If you have any questions in this regard please contact Lynn Kunzler at 801-538-5310 or me at 801-538-5261.

Sincerely,

Paul B. Baker
Minerals Program Manager

PBB: lk: eb

Attachment: Review

cc: Larry Garahana, BLM (lgarahan@blm.gov)

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**INITIAL REVIEW OF REVISED NOTICE OF INTENTION TO
COMMENCE LARGE MINING OPERATIONS**

**Star Stone Quarries, Inc.
Cotton Thomas Quarry**

**M/003/0024
April 23, 2014**

R647-4-104 - Filing Requirements and Review Procedures

Due to the significance of this project, the Division will process this proposal as a revision. The rules define an amendment as an insignificant change, and anything else is classified as a revision. This does not affect the level of response or requirements from the operator, but the Division will need to publish its eventual tentative approval and receive public comment for 30 days prior to issuing final approval.

Review of future submittals may generate comments under rule headings that have no comments at this time, or may require additional clarification due to the response.

Several items were addressed in the revision under rules R647-4-107. Please note that the 107 rules are operational standards for which the inspector will evaluate the site during periodic inspections. They do not require responses for permitting.

R647-4-105 - Maps, Drawings & Photographs

General Map Comments

Comment #	Sheet/Page/Map/Table #	Comments	Review Action
1	maps	Maps 1, 1-a, 2, 2-a, 3, and 3-a all have inaccurate scales, and some show different locations for the two quarries (off by a 100 feet or so when comparing two different maps). These maps need to be redrawn to correctly show locations of the new quarry areas and to show the correct scales.	

105.3 - Drawings or Cross Sections (slopes, roads, pads, etc.)

Comment #	Sheet/Page/Map/Table #	Comments	Review Action
2	Omitted	Please provide a profile and typical cross section of the new access road.	

106.3 - Estimated acreages disturbed, reclaimed, annually

Comment #	Sheet/Page/Map/Table #	Comments	Review Action
3	Omitted	Please provide the estimated acreage to be disturbed and reclaimed annually.	
4	Page 5	The acreage of the new access/haul road is identified as 1.5 acres. Based on measurements from the maps and the average width of previously constructed roads, this road would disturb about two acres. Please correct.	

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106.4 - Nature of materials mined or processed, waste and estimated tonnages

Comment #	Sheet/Page/Map/Table #	Comments	Review Action
5	Page 5	Based on the estimated annual soil salvage volumes, it appears the life of this project is 17.5 years (14,000 yd ³ total soil salvaged at 800 yd ³ per year). Yet based on the volume of reject materials, the life would be 2.5 years (10,000 yd ³ total (see bond calculation) at 4,000 yd ³ per year). Please provide a clear 'life of mine' estimate and adjust these figures accordingly.	

106.5 - Existing soil types, location, amount

Comment #	Sheet/Page/Map/Table #	Comments	Review Action
6	Pages 5 & 6	The modified plan indicates the overburden is only 0.5 feet thick, yet, the Soils Survey map and data provided with the original Cotton Thomas NOTICE indicate an overburden thickness of nearly five feet, and an average of over one foot of topsoil. Please revise this section to accurately portray the soil data, and plan to salvage a minimum of 12 inches of soil for reclamation. This may also require a larger topsoil stockpile area since the volume of soil salvaged would be 48,900 cubic yards versus 14,000 cubic yards planned for.	

106.6 - Plan for protecting & re-depositing soils

Comment #	Sheet/Page/Map/Table #	Comments	Review Action
7	Page 6	Please provide plans to protect stockpiled topsoil until used for reclamation. Appropriate protection measures could include signage, temporary seeding, mulching, berms or a combination of these.	

R647-4-109 - Impact Assessment

109.1 - Impacts to surface & groundwater systems

Comment #	Sheet/Page/Map/Table #	Comments	Review Action
8	Omitted	Please provide storm water management plans.	

109.2 - Impacts to threatened & endangered wildlife/habitat

Comment #	Sheet/Page/Map/Table #	Comments	Review Action
9		Any proposed new disturbance in areas that have been mapped as sage grouse management areas (due to current and historic use) need a discussion of potential impacts to this proposed threatened species and a plan for mitigating this impact.	

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Comment #	Sheet/Page/Map/Table #	Comments	Review Action
10	Omitted	Please provide a discussion of sage grouse in the NOTICE. The area was surveyed by a Wildlife Resources biologist, and seven sage grouse leks were identified within a four-mile radius of the proposed operations. It was also determined that the area provides nesting/brooding habitat and year-round use by sage grouse. Mitigation plans to reduce the impacts of mining on the habitat and leks should include: 1) Avoidance of critical areas (leks), 2) Reclamation of the area after mining to restore habitat, and 3) Habitat improvement at a 4 to 1 ratio (improvement acres to disturbed acres). This means the proposed 30 acres of disturbance would need to have 120 acres of habitat improvement. This could come in the form of reclaiming previously disturbed areas no longer needed for mining; improvements to habitat in surrounding areas, such as pinyon/juniper tree removal, water developments, etc.; participating in a larger scale project conducted by Wildlife Resources, the BLM, or the Natural Resources Conservation Service, or a combination of the above. The Division would accept the reclamation work done last fall in the Rosebud area (10 acres between the Rosebud quarry and the mill site area for the Green Peak quarry). Thus there is a need to improve an additional 110 acres.	

109.4 - Slope stability, erosion control, air quality, safety

Comment #	Sheet/Page/Map/Table #	Comments	Review Action
11	Omitted	Please provide results of a cultural resource survey that would identify any sites potentially eligible for listing on the National Register of Historic Places and provide mitigation for any sites that may be impacted.	

R647-4-110 - Reclamation Plan

110.2 - Roads, highwalls, slopes, drainages, pits, etc., reclaimed

Comment #	Sheet/Page/Map/Table #	Comments	Review Action
12	Page 9	Please provide plans to reclaim the new access/haul road. While a variance was requested to leave this road, adequate justification was not provided. The tie-on to the Pole Canyon Road (a private road belonging to others) would not provide access to your property without first obtaining rights-of-way with the land owners who own/control this road.	

R647-4-112

Comment #	Sheet/Page/Map/Table #	Comments	Review Action
13		See comments under R647-4-110.2	

R647-4-113 - Surety

Comment #	Sheet/Page/Map/Table #	Comments	Review Action
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Comment #	Sheet/Page/Map/Table #	Comments	Review Action
14	Attachment #1	The surety estimate provided is not adequate. It uses an outdated format, and the unit costs are also outdated. Please download a copy of the Division's current Reclamation Cost Estimate forms from our website at http://linux1.ogm.utah.gov/WebStuff/wwwroot/minerals/bonding_worksheets.html	
15		The surety for the entire Cotton Thomas quarry needs to be updated (please refer to the Division's December 3, 2012, letter). Please use the referenced worksheets to provide a reclamation cost estimate for the whole site.	